

PCRwy #2

CABOOSE



Preliminary Report
Restoration Report



PRELIMINARY REPORT

PACIFIC COAST RAILWAY [^{formerly} NEVADA-CALIFORNIA-OREGON RAILWAY]

NARROW GAUGE CABOOSE NO. 2.

by

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PRELIMINARY HISTORY OUTLINE

NARROW GAUGE CABOOSE NO. 2

Nevada-California-Oregon Railway

At the turn of the century, the three-foot gauge, thirteen-year old Nevada-California-Oregon Railway was busy building northward from Reno, Nevada. The line had been originally called the Nevada and Oregon Railway, a name loosely describing its sponsors' intent to challenge the traffic market between the southwestern states and the pacific northwest, monopolized at that time by the Southern Pacific¹. Following several turbulent reorganizations, the smaller road became the Nevada-California-Oregon Railroad in 1893². The commercial intent of the fledgling company was vastly different from its predecessors; all construction was now focused on reaching Southern Oregon. A new railhead was established at Madeline, California in 1902, remaining there four years³.

In the summer of 1906, 21 more miles of track had been laid to Likely, California, and still further to Alturas, to which regular trains began operating in 1908⁴. Freight service was climbing slowly, with cattle becoming the major commodity⁵. The railroad took advantage of its modest freight profits⁶, and in 1910 placed in service a second, all-wood caboose to better serve freight trains originating in both Alturas and Reno. The new car, logically numbered 2, cost \$837.30⁷, rode on leaf-sprung arch bar trucks, had Tower knuckle couplers and Westinghouse air brakes, and was apparently quite different from Caboose No. 1. The cupola on the newer car

was located off-center as opposed to the central lookout on car No. 1⁸. To date, nothing is known on the exact configuration or markings of Caboose No. 2, and there are no published photos of this car while in N-C-O service.

Caboose No. 3, which was nearly similar in exterior configuration to its predecessor, cost \$1,399.25 and was placed in service in July 1913⁹.

The builders of both Caboose Nos. 2 and 3 are unknown. "Several passenger cars" were constructed by Reno Mill and Lumber Company of Reno and Truckee¹⁰. It seems likely then that these two cars were built by this company, or by the Nevada-California-Oregon shops in Alturas¹¹.

A marked change with N-C-O operations occurred on June 11, 1917 when the 64-mile section of narrow gauge between Hackstaff (Herlong), Nevada and Reno was sold to the Western Pacific¹². The W.P.'s charter for construction had made no allowance for branch lines or feeder connections, forcing the new transcontinental to operate as a bridge road between Utah and California. Unable to generate enough profit from this method of operation, the W.P. sought to acquire existing railways as branch lines to tap traffic markets just outside its traffic corridor. The purchase of a segment of the N-C-O provided Western Pacific with a competitive route to the commerce of western Nevada and a new connection with the Southern Pacific. The N-C-O closed down its shops in Reno, transferring its base of operations to Alturas, California. The last narrow gauge mixed train left Reno on January 30, 1918¹³.

By 1922, the owners of the Nevada-California-Oregon Railroad were realizing new operating deficits. Seasonal cattle and hay traffic was not generating sufficient income to support the line. Efforts to sell the entire line to the Western Pacific were rejected, and an application to abandon was filed with state and federal authorities in 1922. After local investigations by the California Railroad Commission, the N-C-O was directed to remain operating as a public and local necessity, although abandonment was allowed for the 16 miles of rail between the Western and Southern Pacific connections.

In 1925, the Southern Pacific purchased the Nevada-California-Oregon. Southern Pacific planned to widen the gauge of the road to standard and make the N-C-O the nucleus of a new cutoff between their Oregon lines and the Overland route running through Nevada. The Moran family, owners of the narrow gauge, accepted Pacific Electric stock in payment for the road. S.P. formally acquired the N-C-O in October 1926. By early summer 1927, S.P. laborers were already dual gauging the railroad, with regular standard gauge operations beginning on October 24, 1927¹⁴.

In 1928, the disposal of three-foot gauge rolling stock was begun. A total of 10 narrow gauge locomotives were removed to Sparks, with five of these going further south to S.P.'s Owens Valley narrow gauge operations. The remaining five locomotives became derelicts at the Sparks shops¹⁵. Locomotives number 10 and 11, Cabooses Nos. 2 and 3, and a large number of miscellaneous freight cars¹⁶ were sold via the United Commercial Company to the Pacific Coast Railroad in 1928 or 1929.

The two cabooses retained their N-C-O numbers after delivery to their new home in San Luis Obispo, California. Public Utilities Commission reports for the Pacific Coast Railroad in 1930 indicated that \$523.87 was paid for two cabooses¹⁸.

A gravel quarry operation on the P.C. line caused booming freight traffic. The gravel was delivered to a new state highway project adjacent to the Pacific Coast route. Once the new highway opened, the railroad passenger operations plummeted; daily passenger trains were cut to a twice weekly mixed train to Los Olivos, and a thrice weekly mixed service to Orcutt¹⁹. It appears that at this time, Caboose No. 2 was altered into a baggage-passenger-caboose for use on the mixed trains. A pair of large baggage doors were added to the A-end, one per side, and a window added to the toilet compartment. Throughout the 1930's, the caboose served as a combination coach on the mixed train together with a baggage-express car. During this period, a cap was added to the stovepipe, and the car was repainted and relettered with its reporting marks on the "A" end sides ahead of the baggage doors²⁰.

On October 10, 1937, Caboose No. 2 was part of a special Railway and Locomotive Historical Society excursion train between San Luis Obispo and Port San Luis. Photographs taken at this event show a different lettering scheme²¹.

Between October 1937 and July 1938, No. 2 was again shopped at San Luis Obispo²². The end platforms, endsills, and wood steps were replaced, the new steps being fabricated from sheet metal. The "A" ~~endsill~~ ^{platform end timber} was improperly mortised and installed upside down. The left corner side railing was bent and not repaired (time unknown).

The car was again used in a final passenger excursion to Santa Maria on October 20, 1940²³. Earlier in the year, the I.C.C. approved a request to abandon the Sisquoc gravel branch²⁴ after the gravel pits were worked out.

On April 21, 1941, the Pacific Coast Railroad Company gave in to operating deficits and filed for abandonment and removal of all rail south of San Luis Obispo. Official permission to abandon was received on December 20, 1941. The remaining trackage between Port San Luis and San Luis Obispo, some rolling stock, locomotive number 110, and the ocean wharf were sold to the Bell Oil Company for use as the Port San Luis Transportation Company. Bell Company intended to use the right of way for a petroleum pipeline²⁵. After a few short months of ownership, the entire railroad was requested by federal authorities as scrap to aid the mounting war effort²⁶. Bell sold the wharf at the port to an associate and the rest of the plant to Dulien Steel Products of Los Angeles²⁷. The metals company used engine number 110 to remove the rails, taking them down to the S.P. interchange in San Luis Obispo.

Caboose No. 3 was sold, less trucks, to the owners of Morada Ranch in Santa Ynez, California, where it became a guest cabin and so remains today²⁸.

Caboose No. 2 was sold to Ward Kimball of San Gabriel, California, for his Grizzly Flats Railroad²⁹. Both cabooses had their cupolas sawed off to meet highway clearance restrictions before being trucked to their respective owners. Caboose No. 3's cupola was scrapped and replaced with a false cupola designed by local woodworkers. Caboose No. 2's lookout was replaced by Kimball, without repairing the saw damage done during its removal. Kimball also removed the car's roofwalks, roof grab irons, brake retainer valve and

pipng, and ladder handgrabs. The saw damage surrounding the cupola was repaired with metal flashing, a great deal of tar, and composition roofing paper. The caboose has seen minimal service on Kimball's small railway, serving for the most part as a storage facility for his railroad artifact collection³⁰. For a time during the 1950's, the waycar was lettered "Grizzly Flats R.R.", Number "4", but has since been repainted plain boxcar red with no lettering³¹.

I-2937C

CHRONOLOGY

CABOOSE NO. 2

Nevada-California-Oregon Railway

- 1910 Caboose purchased by Nevada-California-Oregon Railway for \$837.30. (Builder unknown but may have been Reno Mill and Lumber Company or N-C-O shops.)
- 1925 (October) Nevada-California-Oregon Railway purchased by Southern Pacific.
- 1927 (Summer) S.P. dual gauges N-C-O and narrow gauge equipment no longer required.
- 1928-29 Sold to United Commercial Company and then to Pacific Coast R.R. and delivered to San Luis Obispo, California, retaining same number.
- 1930 Altered to baggage-passenger-caboose for use on mixed train by addition of a baggage door each side of car at "A" end and a window to the toilet compartment.
- 1930's Cap added to smokestack and car repainted and relettered with reporting marks on "A" end sides ahead of baggage doors.

1937 (October 10)

Photographed in R&LHS excursion train
between San Luis Obispo and Port San Luis
(lettering scheme changed).

1937 (October) - 1938 (July)

Shopped at San Luis Obispo with replacement
of end platform, end sills, and wood steps
~~replaced~~ by metal steps. "A" end sill
installed upside down.

1940 (October 20)

Used in final passenger excursion to Santa
Maria.

1941 (December 20)

Permission given by I.C.C. for Pacific Coast
R.R. to abandon line. Track and rolling
stock sold to Bell Oil Company and in turn
to Dulien Steel Products Company of Los
Angeles, California.

1946

Sold to Ward Kimball, San Gabriel,
California, for use on his private "very
short line", the Grizzly Flats Railroad.

1978

Sold to CSRM(?).

1979 (March 8)

Moved to Restoration Shop.

I-2937C

FOOTNOTES

1. David F. Myrick, Railroads of Nevada and Eastern California (Berkeley, CA, Howell-North Books, 1962), Vol. 1, pp. 341-342.
2. Myrick, Vol. 1, pp. 343-353.
3. Myrick, Vol. 1, pp. 354-355.
4. Myrick, Vol. 1, p. 356.
5. Myrick, Vol. 1, p. 358.
6. Myrick, Vol. 1, p. 356.
7. Telephone interview with David F. Myrick covering Interstate Commerce Commission (I.C.C.) Valuation Reports for the Nevada-California-Oregon Railroad.
8. Myrick, Vol. 1, Photograph of Caboose, p. 354.
9. Myrick, I.C.C. Valuations.
10. Myrick, Vol. 1, p. 354.
11. Telephone interview with Myrick, Nov. 1978. Myrick's Caboose builder theory upheld by Ted Armstrong, N-C-O authority of South Lake Tahoe, CA.

12. Myrick, Vol. 1, p. 357.
13. Myrick, Vol. 1, p. 358.
14. Myrick, Vol. 1, p. 376.
15. Guy L. Dunscomb, A Century of Southern Pacific Steam Locomotives, 2nd ed., (Modesto, CA, Guy L. Dunscomb and Sow, 1963), p. 361.
16. Gerald M. Best, Ships and Narrow Gauge Rails, (Berkeley, CA, Howell-North Books, 1964), p. 69.
17. California Public Utilities Commission (P.U.C.), Annual Report for Pacific Coast Railroad 1930 (State Archives, Sacramento).
18. California P.U.C. annual report 1930.
19. Best, p. 69.
20. Best, p. 94.
21. Best, p. 75.
22. Photograph of Caboose No. 2 at San Luis Obispo, June 1938, (Collection of James Boynton and California State Railroad Museum, Sacramento).
23. Best, pp. 76-77.

24. Best, p. 78.
25. Telephone Conversation with Alphonzo Bell and Joseph Gillilan (Gillilan Land and Oil Company), Nov. 22, 1978.
26. California P.U.C., Annual Report for Port San Luis Transportation Co., 1942, (State Archives, Sacramento).
27. Best, p. 78.
28. Information and photograph supplied by Thomas Petersen, Santa Ynez, CA, Oct. 1978.
29. Best, pp. 94 and 95.
30. California State RR museum photograph, 1978.
31. Best, p. 94.

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PACIFIC COAST RAILWAY

CABOOSE NO. 2

by

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and

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California State Railroad Museum

Department of Parks and Recreation

January 1980

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PREFACE

This is one of a series of reports on equipment being restored by the California State Railroad Museum. It is intended as an in-house document and basically tells what we did, and how and why we did it.

Caboose No. 2, as seen in exhibit, and this report are the culmination of several hundred hours of research and restoration work. The purpose of this report is to briefly give a history of the car, an overview of the options in restoration, and a description of the actual work. More detailed information on the car and the restoration process may be found in the California State Railroad Museum Archives.

NARROW GAUGE CABOOSE NO. 2

Narrow gauge caboose No. 2 is a bit of an enigma: almost nothing is known about its origins, and little is known of its history on the various lines it worked. This dearth of information is not surprising -- caboose cars are, after all, just the tail ends of trains and lack the mystique of locomotives or passenger cars. What information exists has yielded a fairly complete history of this car, with only the fine details missing.

The Nevada-California-Oregon Railway acquired an all-wood caboose in 1910,¹ builder unknown. Evidence uncovered during the restoration process at the CSRM Unit Shop suggests that the caboose was built on all or parts of a Sierra Valleys Railway flat car frame (see Research), but it is not known whether the caboose was built by the SV, the N-C-O after it purchased the SV, or a local lumber company. It does appear, however, that the caboose was built locally in Nevada or eastern California, possibly at the N-C-O shops in Alturas. Caboose No. 2, as purchased, was equipped with an off-center cupola, automatic couplers, and air brakes. There were probably three windows on either side of the car, judging from the design of N-C-O Caboose No. 3, purchased in 1913 (builder also unknown). To date, nothing is known of the exact configuration or markings of Caboose No. 2 while in N-C-O service, and no published photographs of this car have been found.

Caboose No. 2 was in service with the N-C-O for about 15 years before it was sold, along with Caboose No. 3 and other pieces of rolling stock, to the Pacific Coast Railway via the United Commercial Company in 1928.² The

caboose remained No. 2 after delivery to the PCRY in San Luis Obispo, California. Reports to the Public Utilities Commission on the PCRY in 1930 indicate that \$523.87 was paid for caboose cars Nos. 2 and 3.³

It appears that Caboose No. 2 was altered to a baggage-passenger-caboose in the early 1930s,⁴ after the new highway between Los Olivos and Los Alamos opened and railroad passenger service sharply declined. At this time, two large baggage doors were added to the A-end, one on each side, and a window was added to the toilet compartment. The earliest known photographs of the caboose were taken after this alteration. Throughout the 1930s the caboose served as a combination coach on the mixed train, along with a baggage-express car.

In October 1937, Caboose No. 2 was part of a special Railway and Locomotive Historical Society excursion train between San Luis Obispo and Port San Luis. Between 1937 and 1939 (exact date unknown), the caboose was shopped for repair and renovation. The siding, platforms, buffer beams, and wooden steps were replaced -- the new steps being made of sheet metal, and the A-end buffer beam improperly mortised and installed upside down. The car was used in a final passenger excursion to Santa Maria in October 1940. Earlier in the year, the ICC had approved a request to abandon the Sisquoc branch, the last of the profitable branches, and the end of the PCRY was in sight.

The Pacific Coast Railway was abandoned in December 1941, and the rolling stock was sold to Aaron Ferer & Son of Los Angeles. Caboose No. 2 was sold in 1946 to Ward Kimball (former chief animator for Disney Productions) of San Gabriel, California for use on his "very short line," the Grizzly Flats

Railroad. The cupola was sawed off to meet highway clearance restrictions before the car was trucked to its new home. Mr. Kimball replaced the cupola upon delivery, but without repairing the saw damage done during its removal. The damage was covered with metal flashing, a great deal of tar, and composition roofing paper. He also removed the roofwalks, roof grab irons, brake retainer valve and piping, and ladder hand grabs. The caboose saw minimal service while on the Grizzly Flats, being used for the most part as a storage facility for Mr. Kimball's railroad artifact collection. For a time during the 1950s, the caboose was lettered "Grizzly Flats R.R. #4," but was later repainted plain boxcar red.

Caboose No. 2 was sold to the California State Railroad Museum by Mr. Kimball in 1978, and was moved to the CSRM Unit Shop in March 1979 (see Photos #1 and 2). Research was begun immediately, and restoration commenced in July 1979. A full accounting of the work required by restoration can be found later in this report, under Restoration.

CABOOSE NO. 2 CHRONOLOGY

- 1910 Caboose added to N-C-O equipment roster. Builder and place unknown.
- 1927 Southern Pacific standard gauges N-C-O; narrow gauge equipment no longer needed.
- 1928 Caboose sold to United Commercial Company, then to Pacific Coast Railway. Delivered to San Luis Obispo, California, retaining N-C-O number, 2.
- ca. 1930 Altered to baggage-passenger-caboose for use on mixed trains by addition of a baggage door on each side of the "A" end and a window in the toilet compartment.
- 1930s Cap added to smokestack; car repainted and relettered with reporting marks on "A" end sides, ahead of the baggage doors.
- 10-1937 Used in R&LHS excursion train between San Luis Obispo and Port San Luis. Lettering changed.
- ca. 1938 Shopped at San Luis Obispo for replacement of platform and buffer beams; wooden steps replaced with metal steps. "A" end buffer beam installed upside down.
- 10-20-1940 Used in final passenger excursion to Santa Maria.

12-20-1941 Permission granted by ICC for Pacific Coast Railway to abandon entire line. Right-of-way purchased by Bell Oil Co. through Alphonze E. Bell Corp. Equipment sold to Aaron Ferer & Son of Los Angeles. Caboose sold by Ferer to Dulien Steel Products Co. of Los Angeles.

1946 Caboose sold to Ward Kimball for use on his private "very short line," the Grizzly Flats Railroad in San Gabriel, California.

1978 Caboose sold to California State Railroad Museum.

3-1979 Caboose arrives at CSRM Restoration Shop in Sacramento.

1980 Restoration completed and car awaiting placement in History Building.

RESTORATION OPTIONS

The California State Railroad Museum found itself in 1979 to be in the enviable position of having two narrow gauge caboose cars, with space for only one in the final exhibit of the 1920s narrow gauge freight train. A preliminary report was prepared by Kevin Bunker to assist in making the decision as to which caboose, Northwestern Pacific Railroad No. 5591 or Pacific Coast Railway Caboose No. 2, would appear in the final exhibit.

The freight train exhibit will consist of several pieces of narrow gauge rolling stock on a second-level trestle. The costs and difficulties involved in changing a piece of rolling stock on the trestle ruled out the possibility of using both cars at different times. The scope of the exhibit also negated the feasibility of using either car with only a partial restoration: restoration would have to be complete before either car could be used in the exhibit.

The restoration costs, artifact value, and interpretive value of both cars were carefully considered before a final decision was reached. No consideration was given to previous restoration of either piece as precedents had already been established that the proper restoration for interpretive purposes outweighs any prior work. No claim was made as to the accuracy of cost analysis on the restoration of either piece, as neither had been thoroughly inspected or disassembled.

Northwestern Pacific Railroad Caboose No. 5591

Northwestern Pacific Caboose No. 5591 was inspected in storage at the Key System Barn in Oakland in 1978. At that time, the caboose had been in storage for ten years. The car was built by the North Shore Railroad Car Shops at Sausalito, California in 1904, became part of Northwestern Pacific Railroad Company in 1907 as NWP NO. 6101, was renumbered to NWP NO. 5591 in 1914, and retired in 1930. The caboose was sold to the United Commercial Company in 1934, at which time the brake gear, trucks, and platforms were removed, and the car was converted to a residence near Point Reyes Station. In 1959, the caboose was donated to the State of California and trucked to Samuel P. Taylor State Park. The Pacific Coast Chapter of the Railway and Locomotive Historical Society was entrusted with the car in 1968 for restoration and possible future inclusion in the California State Railroad Museum. Restoration was performed by the Bethlehem Shipyards in San Francisco in 1968-69 for \$14,000.

The inspection of Caboose No. 5591 pointed out some of the work required for a complete restoration. A "dusting off" for exhibition was not considered because of the Museum philosophy of accurate restoration of rolling stock. The work required included the replacement of all end sill and platform iron, all door hardware, the retainer valve, interior cabinet spring locks, and the Westside Lumber Company trucks with new, correct trucks. The replacement of the trucks presented the major problem in restoration, as they would have to be fabricated with parts on hand from other projects. Restoration of this car would have also necessitated residing the outside of the caboose and

fabricating a new water can. At the time of inspection, it was thought that NWP Caboose No. 5591 would be more practical for restoration because of the minimal wood work required, as the CSRM wood working shop was behind schedule on existing projects.

Consideration of the interpretive value of NWP Caboose No. 5591 as compared with PC Caboose No. 2 was the deciding factor. NWP No. 5591, in the 1920-1930 period, could only represent the Northwestern Pacific, and could only be restored as a straight caboose. The car operated in only one area and therefore had a less varied service history than PC No. 2. And, finally, the area served by the Northwestern Pacific Railroad was already represented by the North Pacific Coast locomotive No. 12, Sonoma. As the Sonoma will be the locomotive in the ground-level narrow gauge passenger exhibit, it would seem more desirable to use a caboose from another area and vary the roads represented as much as possible.

Pacific Coast Railway Caboose No. 2

Restoration costs for Pacific Coast Caboose No. 2 were formulated by the CSRM Research Staff following a visit to the Grizzly Flats Railroad in 1979. It appeared at that time that approximately seventy percent of the wood required replacement due to age and disrepair. The restoration of the Monterey & Salinas Valley combine car⁵ was recalled -- basically, a complete rebuild of the car -- but ignored because of the nondecorative construction of the caboose.

The interpretive considerations of Pacific Coast Caboose No. 2 were the main deciding factors. During the 1920-1930 period of the narrow gauge freight train, the caboose could represent either the Nevada-California-Oregon Railway or the Pacific Coast Railway (see Chronology). Also during this period, the car could be restored as either a straight caboose (as it was during its N-C-O service) or as a baggage-passenger caboose (showing the decline of passenger traffic on the Pacific Coast Ry). Caboose No. 2, therefore, permitted a much broader range of restoration and interpretive possibilities, and could represent short-line railroads closer to southern or northeastern California -- areas from which there was no representation in existing railroad equipment in the Museum.

Restoration Decisions

The decision was made in 1979 to restore the Pacific Coast Railway Caboose No. 2 for inclusion in the narrow gauge freight train exhibit. The car will be restored to its appearance as a baggage-passenger caboose on the Pacific Coast in the early 1930s. Research and actual restoration will be covered in later sections of this report.

COMPONENT ANALYSIS -- CABOOSE No. 2

PART	A-end/LEFT SIDE	B-end/RIGHT SIDE
Endsill		ca. 1938; rotting on right corner; very loosely attached; must be foamed/replaced
Draw Timbers	ca. 1938; appear solid; reuse	ca. 1938; severe rot and termite damage; replace
Needlebeam	original; appears solid; reuse	original; reuse
Siding	ca. 1937-38 application; poss. 3rd generation	
Steps	metal steps replacement ca. 1938	metal steps ca. 1938
Corner Posts (both lt. side)	original; top & bottom dry rot; scabbed ca. 1915-20; tin sheath ca. 1938	original (?); scabbed near base, unknown date
Corner Posts (both rt. side)	original; tin sheath ca. 1938	original; reuse
Platform Roof Overhang	siding/framing original; some rot & termite damage	original (?)
Door & Door Posts	original; appear solid; reuse	original; door & left post OK; rt. post rotted at top
Door Facia	original; appears solid; reuse	original; rotting; replace
Lavatory Window		added ca. 1930
End Window	prob. original; lift missing, latch extant	replacement ca. 1938; glass & hardware missing
Middle Window	prob. original; hardware extant	original
Tool Box		original frame; resheathed, hinges & hasp original
Baggage Door	original; reuse	original to car; may be older than car (from baggage car?); reuse
Baggage Door Posts	original; bolt holes plugged originally, unplugged pre-1937	original; bolt holes plugged originally, unplugged pre-1937
Bulkhead Grab Iron	prob. original w/ shim; may have been applied differently ca. 1910	original; reuse

PART	A-end/LEFT SIDE	B-end/RIGHT SIDE
Sill Hardware	prob. original; whistle ca. 1938; ladder grab irons missing since 1946	prob. original; grab irons missing from ladder top since 1946
Corner Grab Irons	prob. original; shimmed; shim may not be original, but should be reused	original; bent ca. 1937, must be straightened to original curve
Marker Bracket	original; reuse	original; reuse
Baggage Door Grab Irons	original; reuse	original (?); reuse
Roofwalks/ Grabs	missing since 1946	missing since 1946
Stove Jack Ventilator	kinks in base shield pre-1934-36; no conical cover pre-1936-37	
Toilet Vent		original (?)
Retainer Valve	missing post-1938	
Draft Coupler Gear	prob. original, matches other NCO equipment	prob. original, matches other NCO equipment
Brake Gear Cylinder	prob. original	

Prepared by K. Bunker, 1979.

RESEARCH

Research on Caboose No. 2 was begun in March 1979. The major effort was in paint chronology and color matching, as very little else was possible due to the lack of records or other means of dating changes in the car. The particulars of the paint research may be found in the paint records of Caboose No. 2, which are located in the CSRM Archives. The general paint correlations follow this section.

The paint research was done in accordance with techniques evolved by previous CSRM staff members. This technique calls for making a narrow sample "cut" in an area of paint with a knife or 200-grit sandpaper and light-weight oil. The cut is then widened and smoothed, using 400 or 600-grit sandpaper, and the layers of paint identified and matched with standard color charts. For a more detailed analysis of this method, see the CSRM in-house report "The Monterey & Salinas Valley Railroad: Combination Car. No. 1," page 47.

Paint research has a broader purpose than the identification of paint and colors, though. As the paint correlations show, paint layers may be used to date, at least relatively, alterations in a car -- something that might not be otherwise possible. In the case of the addition of the baggage doors, paint research is of no present use in specifically dating the alteration, but samples from the interior of the doors indicate that they were later additions to the car. Other modifications can also be noted from paint research. For example, judging from differences in paint, it would appear that the wood in

the toolbox is not original, whereas the hardware probably is. Similar changes can be seen in other parts of the car from the paint correlations.

The interior paint can also be used to correlate dates and modifications. In general, there were four layers of paint in the interior. It is known that the interior was painted once while on the Grizzly Flats RR and, assuming that the baggage doors were early PCRY additions, paint samples from the interior of the baggage doors show that the car was painted only once while on the Pacific Coast. The preceeding two layers were applied by the N-C-O. This suggests that the lavatory window was added concurrently with the baggage doors, as the only paint on the frame is the primer used under the PCRY paint.

The exterior of the car was one place in which paint research yielded fairly specific dates for modifications. By extrapolating from the paint and other evidence such as photographs, it is possible to determine that the caboose was resided ca. 1938. The photographs in question show specific lettering styles used on the car during different periods. Only one type was found, indicating that the car was resided prior to this painting. In this case, the lettering has been identified by photographs as ca. 1939, dating the repairs to sometime just preceeding this. The repair was also correlated with other changes in the car, most notably the replacement of wooden steps with metal ones and the incorrect installation of the A-end buffer beam.

Caboose No. 2 carried at least four different lettering schemes during its service with the PCRY. Three of these are found only in photographs and not on the car, but all have been tentatively dated by Kevin Bunker on the basis

of dates visible on the brake cylinder in photographs and other information about the car. The dates appear to be:

- early-mid 1930s -- "PACIFIC COAST 2" stacked on the A-end, ahead of the baggage doors; "2" on B-end, behind end window; safety appliance marks below the end window. (see Photo # 3)
- mid-1930s -- "PACIFIC COAST 2" stacked between the middle windows; "2" on A-end, before the baggage doors; safety appliance marks below the solitary "2." (see Photo # 4)
- ca. 1937 -- "PACIFIC COAST" above the windows, with "2" between the windows; safety appliance marks between and below the windows. (see Photo # 5)
- ca. 1939 -- same as ca. 1937, but without safety appliance marks; new siding and paint, metal steps, A-end buffer beam incorrectly installed. (see Photo # 6)

See Mr. Bunker's notes for clarification of these dates.

Lettering is usually one of the major research tools in dating paint and appearances of a car, but in this case it was of little help as no pre-1938 lettering was found. The last lettering to come to light, though, was some of the most important. This lettering was on the inside of the side sills, and

was not found until the car was dismantled. It consisted of "S.V." on the left sill, B-end (see Photo # 7), and "14400" on the right sill, A-end (see Photo # 8). The left side sill had been spliced on the A-end, thereby destroying any other lettering which might have been on that beam. The "S.V." is thought to be from the Sierra Valleys Ry, and the "14400" is probably the remains of capacity marks from the same line. CSRM staff members credit the numbers as possibly being the light weight of the original car, as no others were found. The Sierra Valleys was not required to comply with the reporting standards of the Association of American Railroads because no equipment was interchanged by the line for interstate commerce.

The lettering found on the side sills and the construction of the frame suggest that Caboose No. 2 may have been built on all or parts of an SV flat car. The frame of the car is built much more sturdily than would be necessary for a caboose; the amount of wood and metal in the frame are superfluous to the weight-hauling needs of a caboose. (For a more detailed description of the construction of the car, see "Car Specifications," Appendix A.) It is unknown whether the frame is the remains of one flat car or a patchwork of several cars. The lettering was found on the inside of the side sills, suggesting that the beams were either turned over or switched from side to side; or they may have come from two different cars. The center sills and bolsters may have come from the same frame, considering their similar appearance and construction. No published photographs of SV flat cars with visible reporting marks have been found, but a photograph of a Sierra Valley & Mohawk RR (the predecessor of the SV) flat car as operated by the Towle Brothers & Co., ca. 1900, is included as Photo # 9.

INTERIOR PAINT -- CABOOSE No. 2

	GENERAL INTERIOR	B-end SIDING	CUPOLA SIDING	BAGGAGE DOORS	LAVATORY SIDING	LAVATORY DOOR INTERIOR	LAVATORY WINDOW
Kimball Paint	cream	cream	green	cream	brick red on bottom half	brick red on bottom half	
ca. 1930	yellow w/ grey primer	yellow w/ grey primer	yellow w/ grey primer	yellow * unk. if primed	grey primer	grey primer	grey primer
	dark green	dark green wainscotting 36" from floor	dark green			dark green	
ca. 1910	aqua	aqua	aqua		aqua	aqua	

* Stripped before extensive sampling could be done. These doors may have had more paint of an earlier era, as the exterior showed traces of paint not found in other areas.

A heavy horizontal line denotes the last layer of paint found -- this is useful in dating modifications to the car.

The other windows appeared to be replacement parts as they had red primer directly on the wood and fewer layers of paint, but extensive sampling was not possible due to stripping.

EXTERIOR PAINT -- RIGHT SIDE -- CABOOSE No. 2

	A-end DOOR POST	A-end CORNER POST	BAGGAGE DOOR	BAGGAGE DOOR POSTS	B-end ROOF OVERHANG	END WINDOW	MIDDLE WINDOW
Kimball Paint	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2
	boxcar	boxcar	boxcar	boxcar		boxcar	boxcar
ca. 1938	med. boxcar	med. boxcar	med. boxcar	med. boxcar	med. boxcar	med. boxcar	med. boxcar
	boxcar	boxcar	boxcar	boxcar			
ca. 1930	brown	brown	brown	brown	brown		brown
	boxcar	boxcar	olive green w/ cream primer *		med. boxcar		lt. boxcar
ca. 1910	orange				orange		black *

* These pieces may have been painted prior to being used on the car.

"boxcar" refers to that shade of red typically used on boxcars.

A heavy horizontal line denotes the last layer of paint found -- this is useful in dating modifications.

EXTERIOR PAINT -- MISC. PARTS -- CABOOSE No. 2

	A-end, inside NEEDLEBEAM	A-end, outside NEEDLEBEAM	B-end NEEDLEBEAM	B-end ROOF OVERHANG	TOOLBOX	TOOLBOX HARDWARE	UNDERSIDE HARDWARE
Kimball Paint	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	black
	boxcar	boxcar	boxcar	med. boxcar	med. boxcar	med. boxcar	
ca. 1938	black	black	black	med. boxcar	med. boxcar	med. boxcar	black
	boxcar	black	boxcar				
ca. 1930	brown	brown	brown	brown		brown	black
	boxcar	black x 2	boxcar	med. boxcar		boxcar	
ca. 1910	orange	orange	orange	orange		orange	black

"boxcar" refers to that shade of red typically used on boxcars

A heavy horizontal line denotes the last layer of paint found -- this is useful in dating modifications.

EXTERIOR PAINT -- LEFT SIDE -- CABOOSE No. 2

	MIDDLE WINDOW	END WINDOW	B-end ROOF OVERHANG	B-end DOOR POST	B-end SIDING	BAGGAGE DOOR	A-end DOOR & CORNER POSTS
Kimball Paint	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar	lt. boxcar x 2	lt. boxcar x 2	lt. boxcar x 2
				med. boxcar	med. boxcar		boxcar
ca. 1938	med. boxcar	med. boxcar	med. boxcar	med. boxcar	med. boxcar w/ "2"	med. boxcar	med. boxcar
	lt. boxcar	lt. boxcar				boxcar	boxcar
ca. 1930	brown	black *	brown	brown		brown	brown
	lt. boxcar dk. brown *		med. boxcar	med. boxcar			boxcar
ca. 1910	boxcar (x2?) traces of black			orange			orange

* These pieces may have been painted prior to being used on the car.

"boxcar" refers to that shade of red typically used on boxcars.

A heavy horizontal line denotes the last layer of paint found -- this is useful in dating modifications.

RESTORATION

Restoration of Caboose No. 2 was begun in July 1979 and completed in early 1980. Despite prior estimates of the work required to restore the car, the actual restoration called for only about two-thirds the proposed rebuilding and replacement of parts. The car was gradually dismantled, starting with the cupola and working down to the frame (see Photo #10). As work progressed, wide-spread dry rot and termite damage became apparent (see Photo #11). The use of urethane foam to repair weak spots, and the reuse of original lumber, however, kept the replacement of components down to approximately fifty percent of the car.

The cupola was removed and, except for most of the roof, replaced because of the damage done to it during the 1946 move to the Grizzly Flats. Parts of the roof, floor and sub-floor, windows, frame, and all of the exterior siding were replaced (see Photo #12). A list of the replaced parts follows this report, as there were too many to mention separately.

The use of urethane foam was a great boon in the restoration of this car. Foam was used to repair weak spots in areas such as the B-end corner posts, where it was necessary to strengthen the structure but unduly difficult to replace the piece. Another chemical product -- ethylene dibromide, a fumigant -- was used when it was discovered that termite damage was not only a past problem but an ongoing process. The car was covered with plastic and EDB was sprayed inside and left for several days to kill any remaining insects.

On completion of restoration, the caboose was painted to simulate its appearance in the early-mid 1930s (see Photos #13 - 15). This entailed painting the whole interior yellow (Fuller O'Brien heavy duty industrial gloss enamel, B49B, "Nectar" over white primer), the floor with standard Southern Pacific boxcar red, and the exterior barn red (Dunn-Edwards Rancho house and trim, 60-54, "Barn Red" over red primer). The lavatory was painted two tones of green: aqua (Fuller O'Brien E80E, "Marina") on the walls and dark green (Fuller O'Brien G121G, "Pirate's Cove") on the door. The window frame was painted with grey primer, but it is unknown at this time whether the rest of the lavatory will receive a light wash of grey primer as it had during the time period being reproduced. The white exterior lettering was done in accordance with Photo #4 of the early-mid 1930s.

REPLACEMENT PARTS LIST

Note: All work represents replacement of parts unless otherwise noted.

FRAME:

side sill, A-end, rt. side - back to queen post
both end sills
sill caps on both ends of center & intermediate sills
posts under cupola (2), rt. side
1-1/2 diagonal braces, rt. side
A-end queen post, rt. side, patches on bottom edge - 18"

EXTERIOR:

siding, entire car
facia & sub-facia, entire car
both end timbers & platforms
metal steps replaced with wood steps
both corner posts, A-end
corner posts, B-end — lt. side, 12" from bottom;
rt. side, rebuilt bottom
B-end roof, all
A-end roof as needed, app. 10%
entire roof overhang, both ends
eaves molding

tool box -- several side boards, A-end;

one bottom board

foamed bottom corners of all 4 corner posts

B-end door & baggage doors facia

new canvas on roof

INTERIOR:

floor

sub-floor & floor, entire B-end;

A-end, rt. side -- sub-floor from baggage door (B-end) to end sill

between side sill & intermediate sill -- several patches on lt. side

(3-4 boards, mostly reused old boards; app. 10' new lumber)

siding patched as needed

doors

lintel & lt. frame, B-end;

rt. frame, A-end (note notch in frames for bunks)

reused both end doors after stripping, exc. B-end stile (outside edge, knob side) & drip plate;

rt. baggage door -- B-end stile replaced;

A-end - patched 9" of stile, replaced whole

bottom rail

lt. baggage door -- both stiles & panel stiles on inside bottom

windows

sashes & moldings, complete

frames complete, exc. verticals of lavatory window

lavatory

several patches on walls around window

1/2 of window frame (top & bottom boards)

roof vent

rebuilt stove roof jack

all cove molding

cubby hole, B-end

conductor's desk -- new seat & desk lid

water tank shelf

new tin around stove & on floor -- replaced as preceeding tin, but not

correct for fire safety -- note char marks on walls around stove and

on lavatory door

fuel bin attached as found -- may originally have been 90° from present
position

CUPOLA:

rebuilt -- cut off just above sills for trucking in 1946

cross sills, both

side sills, both

everything between sills & roof, inc. windows

both B-end seats -- not frames, just seats

seat cabinet door, lt. side, B-end

new canvas on roof

FIXTURES:

stove acquired from Artifacts -- Kimball stove not correct

fabricated roof hand grabs & roof walks

replaced retainer valve & piping -- piping original

replaced & replumbed gauge

APPENDIX A

CABOOSE CAR SPECIFICATIONSDate: January 25, 1980By: Annie GrieshopCar: Pacific Coast Railway Narrow Gauge Caboose No. 2Builder: Unknown Builder # or Plan #: UnknownDate Built: ca. 1909 ± 1 year Date Ordered: Unknown Gauge: 3'Type of Car: Baggage-passenger caboose Passenger Capacity: VariableType of Seats: Cupola seats; benches in baggage compartment Number of Sleeping Berths: prob. 2 bunks as builtNumber of Rooms, Compartments, etc.: 4 - baggage, cupola, conductor's area, lavatoryType of Construction: Wood frame with tie rods - possibly built on flat car frameType of Platforms/Vestibules: Open platformType of Roof: Off-center cupola -- roof covered with canvasType of Floor: Triple-sheathed wood - 2 layers t&g w/ sub-floor, 1 x 12" diagonal on frame Type of Frame: Double center, intermediate, andside sills (all wood) -- center sills have 1 x 3" steel side pieces on both sides, full length --Type of Body Bolsters: "Sandwich" of 3 wood & 4 steel layers, 4 x 12" total Type of Couplers: Tower Automatic KnucklesType of Draft Gear: Single Spring Knuckle Automatic Type of Brakes: Westinghouse Air BrakesExtreme Length of Car w/ Coupler: 35' 8" Length over Buffer Plate: 33' 6"Length over End Sills: 29' 11" Extreme Width: 8' 8" Width over Side Sills: 8'Extreme Height from top of Rail: 13' 6" Height from Top of Rail: 13' 3-1/2"Light Weight: Unknown Extreme Wheelbase: 25' 10"Type of Trucks: Arch bar trucks w/ leaf springs -- Middle A-end leaf spring missingTruck Wheelbase: 61-1/2" Type Wheel Bearings: Brass FrictionWheel Dia.: 26" Wheel Manufacture & Dates: A-end: 2 from N-C-O by FCS Griffin, Denver (11/22 & 11/25/1913) - 2 from unknown by FCS Griffin, Tacoma (both 10/18/1920) -- B-end: all from PCRY by Griffin, Tacoma (10/18-10/21/1929)Type of Safety Equipment: Tower Automatic Couplers, Westinghouse Air BrakesType of Heating: Coal stove in conductor's compartmentType of Air Conditioning: NaturalLavatory Facilities: Dry hopperType of Lighting: Kerosene wall lamps Number of Lighting Fixtures: 3 -- 2 in baggage, (over) 1 in conductor's area

CABOOSE CAR SPECIFICATIONS

Type of Signal/Train Communication Equipment: Air Whistle

Type of Electrical Generator: None

Obvious Historic Patches/Modifications to Car: (use add'l sheet if req'd)

See Body of Report

Identification Numbers/Markings on Carbody, trucks, etc.: (use add'l sheet if req'd)

See Body of Report

Attach CSRM Engineering Drawing reduction print and Chronology for further information.

See Body of Report



Photo #1

Caboose loaded for trucking from Grizzly Flats RR to CSRM Restoration Shop, March 1979. Drawing of Mickey Mouse, possibly the Shop's most famous visitor, was courtesy Mr. Kimball and is now in CSRM Archives. (CSRM Photo)



Photo #2

Car arriving at Restoration Shop with cupola removed for highway clearance. (CSRM Photo)



Photo #3

Earliest known view of Caboose #2, taken between 1930 and 1934.
(Gerald M. Best Collection)

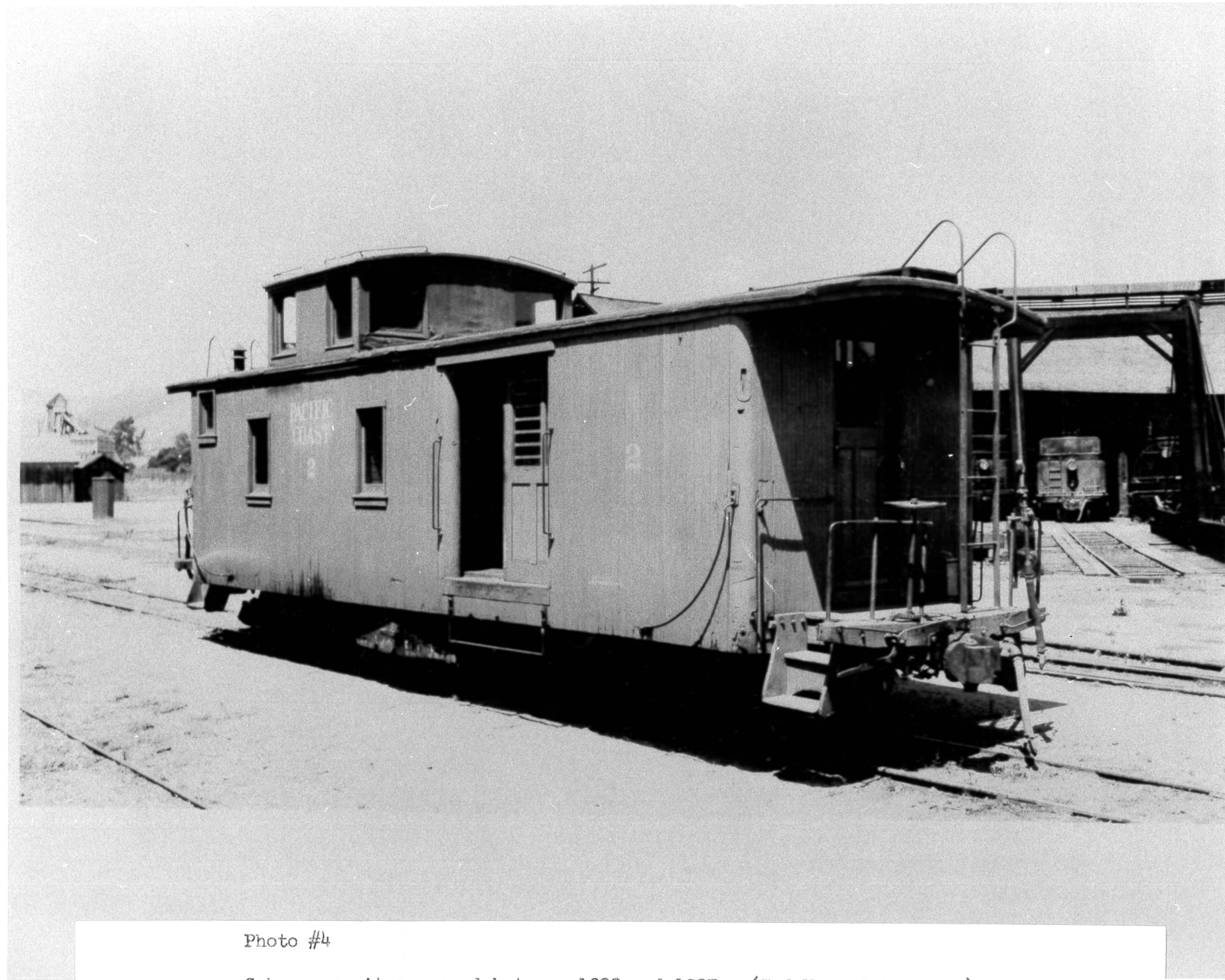


Photo #4

Caboose as it appeared between 1933 and 1937. (Ted Wurm Collection)



Photo #5

Probably taken in late 1937, caboose is in poor condition and awaiting a rebuild. (Bancroft Library Collection)



Photo #6

Newly rebuilt caboose in 1938, with new siding, steps and other repairs. (Gerald M. Best Collection)

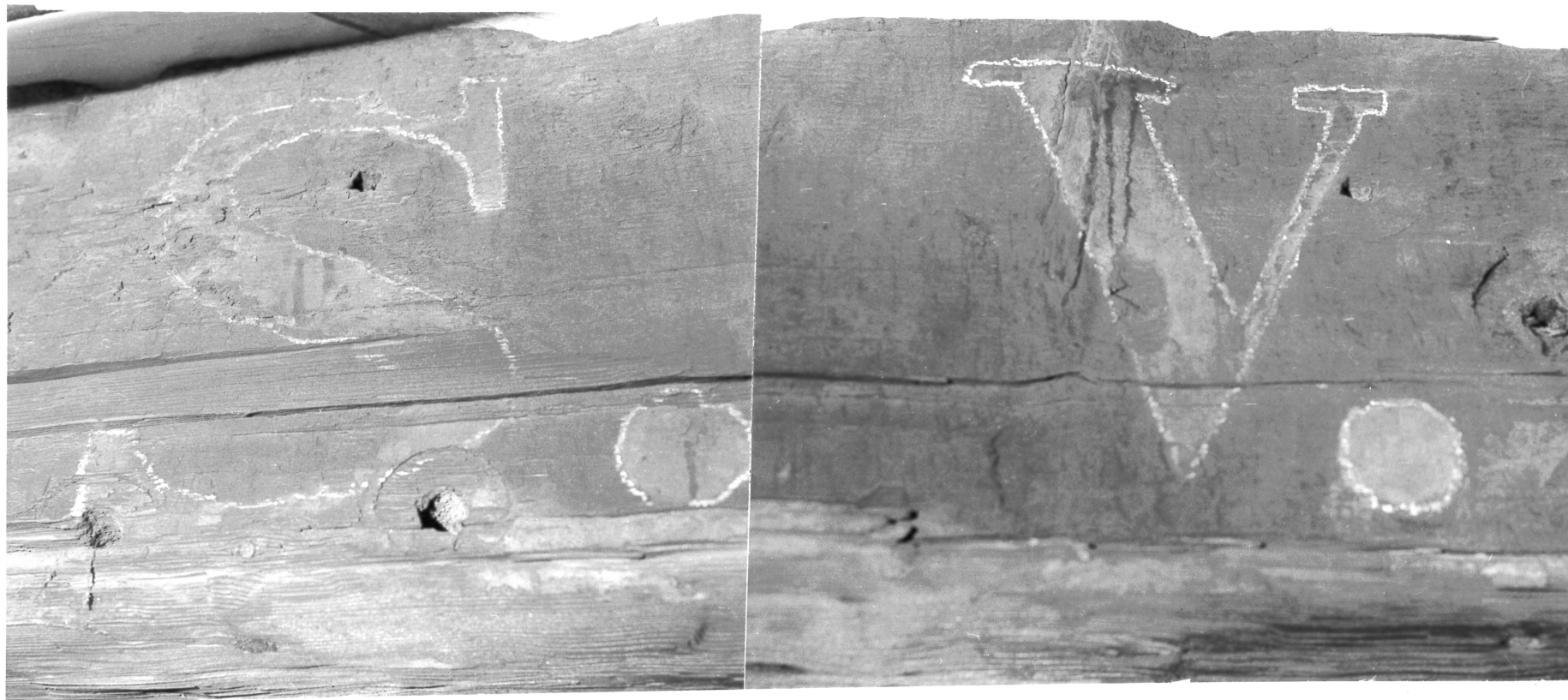


Photo #7

Composite of lettering found on side sills during restoration. Position of letters is approximately as found on the sills. (CSRM Photo)



Photo #8

Capacity marks found on side sills during restoration. (CSRM Photo)

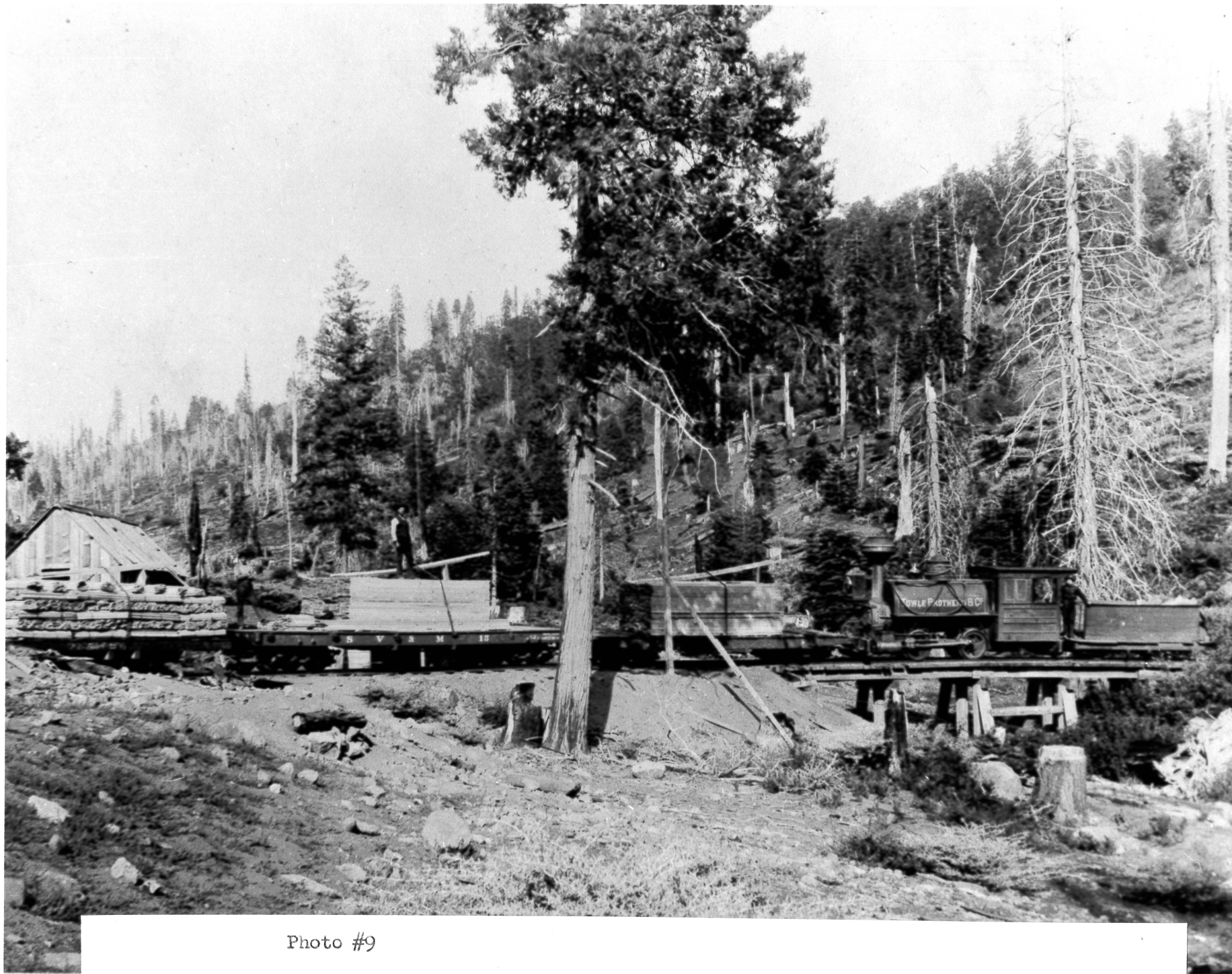


Photo #9

Sierra Valley & Mohawk flat car in use by Towle Brothers & Co.,
circa 1900. (Ken Yeo Collection)



Photo #10

Caboose partly dismantled in Restoration Shop, August 1979. Note poor condition of car from water damage, dry rot, termites, and age. (CSRM Photo)



Photo #11

Dry rot and termite damage to end sill. (CSRM Photo)



Photo #12

Caboose being rebuilt, with replacement parts highly visible. (CSRM Photo)

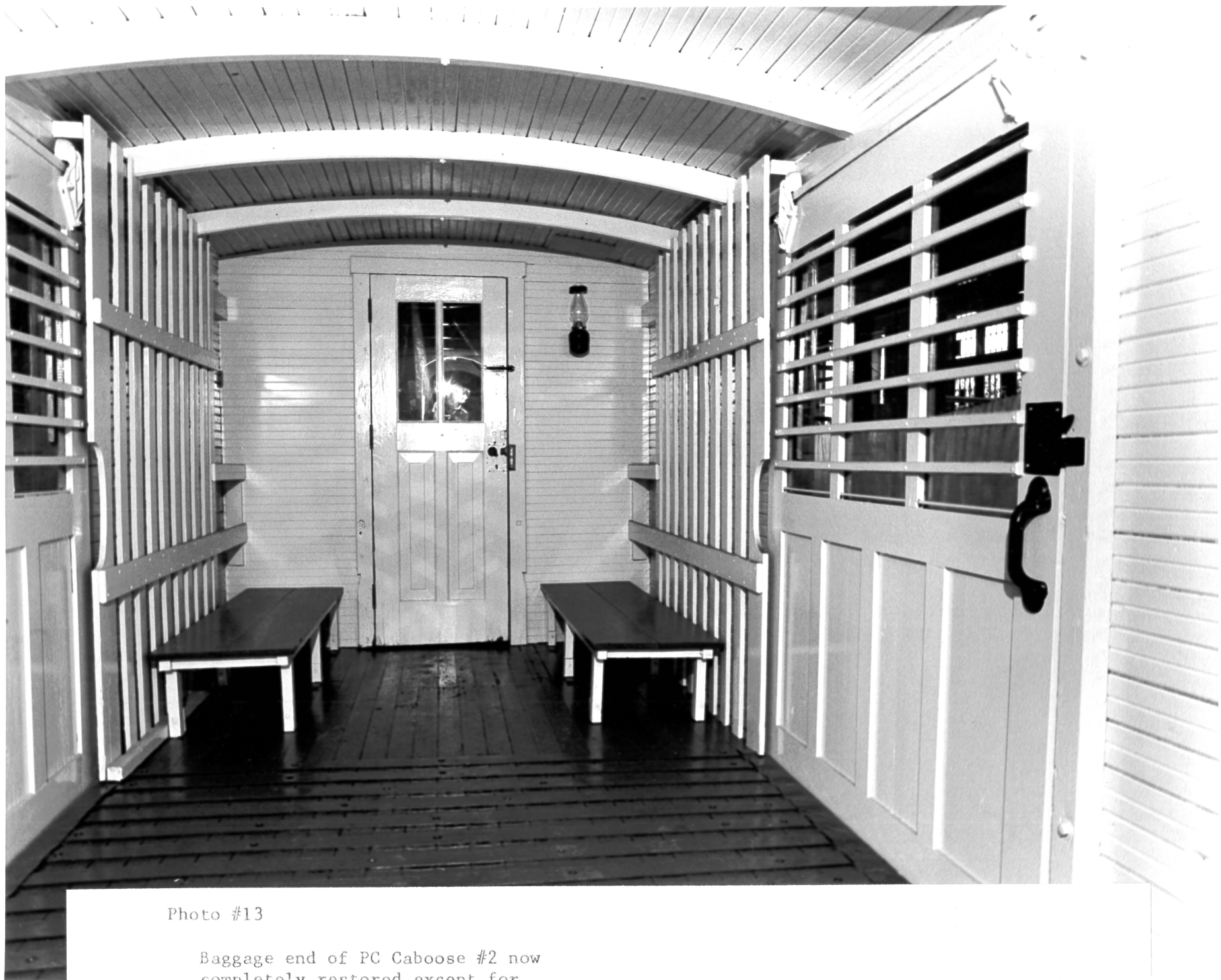


Photo #13

Baggage end of PC Caboose #2 now
completely restored except for
door hardware. (CSRM Photo 1980)



Photo #14

Cupola section of PC Caboose #2
looking towards baggage section.
Restoration complete except for
door hardware. (CSRM Photo 1980)



Photo # 15

Caboose fully restored to mid-1930s appearance, April 1980. (CSRM Photo)

APPENDIX B

SIERRA VALLEYS RAILWAY

The Sierra and Mohawk valleys of Plumas County, California were invaded in the 1850s as part of the Gold Rush. No sizeable amounts of gold were found; but the valleys were prime timber and ranching areas, and enough gold and other ores were found to support a respectable mining industry. Transportation was needed to sustain these operations, and the first rail lines were proposed in the 1870s.

The Sierra Iron Company obtained a railroad franchise in the 1870s and later transferred it to an affiliate, the Sierra Iron & Quincy Railroad (SI&Q). This line, planned for transporting ore from the Gold Lake iron mine, was projected to begin at Quincy and run east to a connection with the Western Nevada Railroad Company (see N-C-O Report). Some right-of-way was purchased, and some financial backing acquired; but the Gold Lake mining project was never begun, and no construction was done on the railroad.

In 1885, the Sierra Valley & Mohawk Railroad (SV&M) was formed by members of the SI&Q and the California Land & Timber Company. The proposed line was to be three-foot gauge for connection with the N-C-O, and was to make that connection at Plumas Junction. Work was begun on the SV&M at Plumas Junction in October 1885. Within a year, twenty-three miles of track had been graded, and the construction engine, Mohawk, was sent to the Virginia & Truckee shops for narrow gauging. Physical track connection was made with the N-C-O at Plumas Junction in late 1886, with thirty miles of grading completed. Two carloads of rail, six flat cars, and other equipment were delivered at this

time. Work ceased on the SV&M in mid-1887 with fifteen miles of track completed, but no regular service. The property and equipment of the SV&M were sold at sheriff's auction in 1888 to cover construction costs.

The railroad was bought by Henry Bowen in 1894. Bowen reorganized the line in San Francisco as the Sierra Valleys Railway (SV), and continued construction and operation of the line. The road's first service locomotive, Plumas, began supply runs in 1895; and regular passenger service from near Beckwith to Plumas Junction was begun soon after. The SV was primarily a lumber-hauling operation between 1896 and 1899. Problems arose with the N-C-O, as all freight had to be reloaded at Plumas Junction because of the N-C-O's refusal to interchange equipment.

The SV was continuously plagued with financial problems from both construction debts and equipment costs. A derailment occurred in 1891, killing engineer Chambers. His wife, Mrs. Chambers, was awarded a death settlement of \$3,000 which was never collected due to lack of funds, but was later converted into a lien. In 1899, Southern Pacific began proceedings against SV to collect debts in the form of construction loans of \$97,000. SP procured a judgement against the SV in late 1900, and attached all rolling stock for back wages. N-C-O purchased the judgement from SP in 1901, paid the back wages, released all liens against the line, and continued operation of the SV as a subsidiary company.

Profits from the operation of the SV were lucrative for the N-C-O, and competition from Western Pacific and the Boca & Loyalton were incentives for further construction on the line. The SV was reorganized, following some

financial and legal settlements, as the Sierra & Mohawk Railway in 1911. The reorganization, unfortunately, did not solve all the line's problems, as Widow Chambers again appeared. Her 1891 death settlement had been converted into a lien and when the property was attached and sold at public auction, she found herself a railroad owner. The N-C-O was forced to buy its own railroad back from her in 1912.

The Sierra & Mohawk was absorbed into the N-C-O as the Plumas Branch in 1915. In 1917, the Plumas Branch was sold to Western Pacific as part of the N-C-O purchase and, in 1918, the line was abandoned by WP. The old road bed was used briefly in the 1920s by the Graeagle Lumber Company and in 1935 the tracks were removed.

SIERRA VALLEYS RAILWAY CHRONOLOGY

- 1881 Sierra Iron & Quincy RR (SI&Q) right-of-way bought by Sierra Iron Co. to run from Quincy to N-C-O at Plumas Junction. No construction done.
- 10-1-1885 Sierra Valley & Mohawk RR (SV&M) formed by members of SI&Q and California Land & Timber Co. To be 3' gauge for connection with N-C-O.
- 10-1885 Work begun on SV&M at Plumas Junction.
- 9-1886 Mohawk, construction engine, sent to V. & T. for narrow gauging.
- 11-1886 Physical track connection with N-C-O at Plumas Junction. Two carloads of rail, 6 flat cars, 1 hand car, and 2 track cars delivered. Thirty miles grading complete.
- 8-1887 Work ceased with 15 miles track complete, but no regular service.
- ca. 1888 Property and equipment sold at sheriff's auction to cover debts.
- 6-1891 Engineer Chambers killed in derailment; widow awarded death settlement.

4-1894 Railroad and band mill at Kerby bought by Henry Bowen for \$20,000. Reorganized in San Francisco as Sierra Valleys Railway (SV). Bowen continues construction and operation of the line.

11-1894 Plumas, first service locomotive, makes trial run.

5-1-1895 Regular passenger service from near Beckwith to Plumas Junction.

1896-1899 Primarily lumber-hauling. N-C-O would not interchange equipment with SV, so all freight had to be reloaded at Plumas Junction.

3-1899 SP begins proceedings to collect \$97,000 debt from SV.

late 1900 SP procures judgement against SV. Rolling stock attached for back wages, trains stop.

3-14-1901 N-C-O purchases judgement from SP, pays back wages and releases liens. Gets control of SV and continues to run it as subsidiary company.

10-1901 Boca & Loyalton reaches Beckwith, creating competition with SV.

5-1903 Clairville-Clio branch completed by N-C-O.

12-1904 Western Pacific begins preliminary work at Beckwourth Pass - more competition for SV and N-C-O.

1911 SV reorganized as Sierra & Mohawk Railway (S&M), but still N-C-O subsidiary.

1912 Widow Chambers (1891 lien) gains control after property attached and sold at public auction. N-C-O buys it back.

1-1-1915 S&M absorbed into N-C-O as Plumas Branch.

4-1916 Extension built from Clio to Davies Mill.

1917 Plumas Branch sold to Western Pacific as part of N-C-O purchase.

4-16-1918 Line abandoned.

1920s Old road bed used by Graeagle Lumber Co.

1935 Track removed.

NEVADA-CALIFORNIA-OREGON RAILWAY COMPANY

The Western Nevada Railroad Company was formed by John Davis in late 1879. The purpose of this line was to transport ore, salt, and mining supplies from Wadsworth, Nevada to Walker Lake, 55 miles away. This was the beginning of the long and complex process culminating in the N-C-O. It also had the reported side effect of motivating the Virginia & Truckee Railroad to begin construction of its long-debated Carson & Colorado Railroad.

The Western Nevada was afflicted from the beginning with both financial insecurity and personal conflicts among the directors. Because of this, Davis abandoned his original plans in 1880 and reorganized the line as The Nevada and Oregon Railroad Company (TN&O). This line was projected to run both north and south from Reno. The plan had great local appeal, as it would have made Reno the major rail junction to the Northwest. In organizing TN&O however, Davis brought his troubles with him by retaining the same cantankerous Board of Directors, and adding a few new members. Two months after organization, Davis resigned as president and director in a dispute over construction plans for the road. Construction was begun without Davis' presence, and ended in debts, liens, and work-stoppages.

A new company, the Nevada & Oregon Railroad Company (N&O), with essentially the same principles was organized in 1881. All rights of TN&O were deeded over to the new company. Soon after the reorganization, a meeting of the Board of Directors was called to remove and replace the directors. One stockholder and the company secretary were shot--an omen of things to come.

The first run on the N&O was made in 1881, on six miles of track. By late 1882, thirty miles of track were in use from Reno to Oneida. In early 1882, however, the rolling stock was sold at sheriff's auction to cover debts, and was bought by a local firm, which promptly leased it back to the company. This arrangement lasted until early 1883, when the line was closed for financial reasons. The line was reopened on a daily use lease basis in mid-1883.

Early in 1884, in compliance with court orders, the N&O property was sold in Reno by a U.S. Marshal. There was only one bidder, the New York banking firm of Moran Brothers, former stockholders in the N&O. The sale included only the property of the railroad as the rolling stock was still being leased by the road. The Moran Bros. quickly proved their intent to make the N&O a profitable venture by extending the line to Junction House (Mile Post 37) by the end of 1884. The N&O was reorganized in early 1885 as the Nevada & California Railroad (N&C), owned by the Moran Bros. Also in early 1885, the original passenger engine, Santa Cruz, was sold and two new Baldwin engines were purchased. Regular runs from Reno to Junction House (later Chat) were started in 1885; and in 1888, the line was extended to Liegan (MP 70).

The N&C was once again reorganized in 1888 - this time as the Nevada-California-Oregon Railway Company (N-C-O) - although a complete transfer of assets was not done until 1893. In the twenty-four years of N-C-O construction (1888-1912), the line was extended from Liegan, California (MP 70) to Lakeview, Oregon (MP 238), and proved to be a modestly profitable line.

Competition appeared in 1909, with the completion of the Western Pacific line paralleling the Sierra Valleys Railway (operated as an N-C-O subsidiary from 1901; absorbed as the Plumas Branch, 1915) from Mohawk to Plumas Junction. SP began competitive construction in 1912. Not only did it invade N-C-O territory, but it was also standard gauge and transcontinental, as compared with N-C-O's lighter and limited narrow gauge. With increased competition came decreased profits, and in 1917 WP purchased sixty-four miles of mainline from Hackstaff (Herlong) to Reno and the Plumas Branch to Davies Mill (39 miles). The N-C-O headquarters moved to Alturas, and the last N-C-O locomotive left Reno in 1918. WP immediately began standard gauging the track.

The sale to WP only slowed the demise of the N-C-O. A hearing with the ICC was held in Alturas in 1922 to determine the future of the line, all of which the N-C-O wanted to abandon. The ICC agreed to allow the abandonment of the track between Wendel and Hackstaff, sixteen miles. In 1925, SP purchased the remainder of the N-C-O for payment in Pacific Electric Railway stock to the Moran family, the sole stockholders. The N-C-O maintained its corporate identity until 1929, even though it was under SP control. Standard gauging was begun in late 1927, but SP lent equipment to the N-C-O (after painting to N-C-O standards) for two years so operations could continue on the new track.

The N-C-O, the "Narrow, Crooked and Onery" child of the Western Nevada Railroad Company, was absorbed into and operated as part of the SP system in September 1929. The narrow gauge equipment of the N-C-O was disposed of--some being transferred to other SP narrow gauge operations; some becoming derelict; and yet others being sold, via the United Commercial Company, to the Pacific Coast Railroad.

N-C-O CHRONOLOGY

- 12-1879 Western Nevada RR Co. formed by John Davis to build south from Wadsworth to Walker Lake, 55 miles.
- 1880 D. O. Mills (V.&T.) learns of Davis' plans, orders construction begun on Carson & Colorado RR.
- 6-1-1880 Davis abandons original plans - organizes The Nevada & Oregon RR Co. (TN&O), projected to run both north and south from Reno.
- 4-25-1881 New company organized - Nevada & Oregon RR Co. (N&O) - with essentially same principles and all rights of TN&O.
- 8-1881 First rolling stock delivered - 5 flat cars from Lake Tahoe RR - Santa Cruz, second-hand locomotive from California.
- 8-8-1881 First run - 6 miles of track complete.
- 1-29-1883 Line closed for financial reasons.
- 6-1883 Line leased to Judge Webster - rolling stock leased on daily use basis from Manning & Berry.
- 6-22-1883 Line reopened - Santa Cruz making regular runs.

4-17-1884 N&O property sold. Moran Brothers (the only bidders) buy it, excluding rolling stock, for \$373,000.

12-8-1884 Track complete to Junction House (Chat) - MP 37.

1-1885 Reorganized as Nevada & California RR (N&C), owned by Moran Bros.

early 1885 Two new BLW locomotives arrive.

3-2-1885 Regular runs from Reno to Junction House.

1887-1888 Northward expansion - track complete to Liegan (MP 70) by 9-10-1888.

1888 Moran Bros. form Nevada-California-Oregon Ry Co. (N-C-O), but complete transfer of assets not done until 1-1-1893.

8-1890 Track complete to Amadee (MP 79), railhead for 10 years.

1-1-1893 N-C-O officially takes over the entire Ry.

6-1-1900 Track complete to Termo (MP 130), with 14 more miles added in 1900.

1901 Sierra Valleys Ry bought as subsidiary.

1-1902 Track complete to Madeline (MP 144).

10-1-1907 Track complete to Likely (MP 164).

12-1-1908 Track complete to Alturas (MP 184).

1909 Western Pacific completed - parallels entire SVRy branch from Mohawk to Beckwourth Pass.

1-10-1912 Track complete to Lakeview, Oregon (MP 238), northern railhead until the abandonment of line.

1912 Southern Pacific begins construction competing with N-C-O. N-C-O had a big disadvantage in competing with a transcontinental standard gauge line.

1915 Sierra & Mohawk absorbed into N-C-O as Plumas Branch.

6-11-1917 WP purchases 64 miles of mainline from Hackstaff (Herlong) to Reno, and Plumas Branch to Davies Mill (39 miles). N-C-O headquarters move to Alturas.

1-30-1918 Last N-C-O locomotive leaves Reno - WP begins standard gauging.

2-1922 ICC hearing in Alturas for abandonment of remaining N-C-O line. ICC agrees to abandon track between Wendel and Hackstaff (16 miles).

10-31-1922 Last N-C-O train.

4-30-1925 SP purchases remainder of N-C-O in return for Pacific Electric Ry stock from Moran Bros.

10-24-27 SP standard gauging ^{operations} commences.

7-1927 N-C-O maintains corporate identity, even though under SP control.
SP lends and reletters their equipment to N-C-O until 9-1929.

9-1929 N-C-O properties operated as part of SP system, being divided between the Salt Lake and Shasta Divisions.

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ACCOUNT.	EXPENDITURES FOR NEW LINES OR EXTENSIONS DURING THE YEAR.			EXPENDITURES FOR ADDITIONS AND BETTERMENTS DURING THE YEAR. [See page 33.]	TOTAL EXPENDITURES. JULY 1, 1907, TO JUNE 30, 1909.	TOTAL EXPENDITURES. JULY 1, 1907, TO JUNE 30, 1910.
	THROUGH ISSUE OF SECURITIES.	FROM CURRENT FUNDS.	FROM SPECIAL APPROPRIATIONS.			
II. EQUIPMENT:						
37. Steam Locomotives,		1289083			1088900	3617923
38. Electric Locomotives,		352360			195339	524624
39. Passenger-Train Cars,		81480			3288244	3369724
40. Freight-Train Cars,		516892			141825	658747
41. Work Equipment,						
42. Floating Equipment,						
TOTAL,		3216785			4684338	8201123
III. GENERAL EXPENDITURES:						
43. Law Expenses,					120	120
44. Stationery and Printing,					13794	13794
45. Insurance,						
46. Taxes,						
47. Interest and Commissions,						
48. Other Expenditures,					14534	14534
TOTAL,					28478	28478
RECAPITULATION.						
I. ROAD,		6584073			39138670	45722763
II. EQUIPMENT,		3216785			4684338	8201123
III. GENERAL EXPENDITURES,					28478	28478
TOTAL - ENTIRE LINE,		10100858			43851506	53952364
TOTAL - STATE OF <i>California</i> ,						

Not Segregated

SUMMARY OF ROAD AND EQUIPMENT.

ACCOUNT.	AMOUNT,		REMARKS.
	ENTIRE LINE.	STATE OF <i>California</i>	
INVESTMENT TO JUNE 30, 1907:			
ROAD,			
EQUIPMENT,			
INVESTMENT SINCE JUNE 30, 1907,			
TOTAL,	27511264	51952364	
RESERVE FOR ACCRUED DEPRECIATION—Cr.,	329068056	5684698	
NET TOTAL,	523388358		<i>Not Segregated</i>
COST PER MILE OF LINE,	1757434		

FROM: ANNUAL REPORT OF THE NEVADA-CALIFORNIA-OREGON RAILWAY TO THE BOARD OF COMMISSIONERS OF THE STATE OF CALIFORNIA, FOR THE YEAR ENDING JUNE 30, 1910.

AND STATE ADMINISTRATOR

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FOR THE YEAR ENDING JUNE 30, 1910

DESCRIPTION OF EQUIPMENT—ENTIRE LINE.
[FOR COMPANIES MAKING OPERATING REPORTS.]

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[Page 110 follows.]

ITEM.	NUMBER ON JUNE 30, 1909.	NUMBER ADDED DURING YEAR.	NUMBER RETIRED DURING YEAR.	NUMBER ON JUNE 30, 1910.	NUMBER FITTED WITH—	
					TRAIN BRAKE.	AUTOMATIC COUPLER.
LOCOMOTIVES—OWNED OR LEASED:						
Passenger,	3	0	0	3	3	3
Freight,	5	2	0	7	7	7
Switching,	0	0	0	0	0	0
TOTAL LOCOMOTIVES IN SERVICE,	8	2	0	10	10	10
Less Locomotives Leased,	0	0	0	0	0	0
TOTAL LOCOMOTIVES OWNED,	8	2	0	10	10	10
CARS—OWNED OR LEASED:						
IN PASSENGER SERVICE—						
First-class Cars,	2	2	0	4	4	4
Second-class Cars,	2	0	0	2	2	2
Combination Cars,	2	1	0	3	3	3
Emigrant Cars,	0	0	0	0	0	0
Dining Cars,	0	0	0	0	0	0
Parlor Cars,	0	0	0	0	0	0
Sleeping Cars,	0	0	0	0	0	0
Baggage, Express, and Postal Cars,	3	0	0	3	3	3
Other Cars in Passenger Service,	0	0	0	0	0	0
TOTAL,	9	3	0	12	12	12
IN FREIGHT SERVICE—						
Box Cars,	30	0	0	30	30	30
Flat Cars,	78	0	0	78	78	78
Stock Cars,	34	0	0	34	34	34
Coal Cars,	0	0	0	0	0	0
Tank Cars,	0	0	0	0	0	0
Refrigerator Cars,	0	0	0	0	0	0
Other Cars in Freight Service,	0	0	0	0	0	0
TOTAL,	142	0	0	142	142	142
IN COMPANY'S SERVICE—						
Officers' and Pay Cars,	1	0	0	1	1	1
Gravel Cars,	0	0	0	0	0	0
Derrick Cars,	1	0	0	1	1	1
Caboose Cars,	1	1	0	2	2	2
Other Road Cars,	27	0	1	26	10	21
TOTAL,	30	1	1	30	14	34
TOTAL CARS IN SERVICE,	181	4	0	184	168	184
Less Cars Leased,	0	0	0	0	0	0
TOTAL CARS OWNED,	181	4	1	184	168	184
CARS CONTRIBUTED TO FAST FREIGHT LINE SERVICE.	0	0	0	0	0	0

B. EQUIPMENT OWNED OR LEASED NOT IN SERVICE OF THE RESPONDENT.

LOCOMOTIVES,

Cars in Passenger Service,

Cars in Freight Service,

Cars in Company's Service,

TOTAL CARS,

PACIFIC COAST RAILWAY

The coastal valleys of California between San Luis Obispo and Santa Ynez contain some of the best farm land in the State. Initially settled in the 18th century, local transportation could no longer meet the needs of the ranchers and merchants by the mid-19th century. San Luis Bay offered great possibilities as a steamship port, but the problem remained of transporting goods to and from the bay.

San Luis Bay became a shipping port in 1855 with the construction of the first wharf, but presented difficulties in passenger and freight transportation because it was too shallow to allow large steamships to dock close to the shore. John Harford overcame this problem in 1871 by building a wharf extending into the bay, and a thirty-inch horse and gravity railroad from the wharf to the flats of San Luis Creek. Although it was not powered by steam, Harford's line was one of the first narrow gauge roads in California. In 1873, the San Luis Obispo Railroad (SLO), also thirty-inch gauge, was formed to connect with Harford's railroad from San Luis Creek to the town of San Luis Obispo. The San Luis Obispo and Santa Maria Valley Railroad (SLO & SMV) was authorized by the State Legislature in 1874 to construct a railroad from San Luis Bay to Santa Barbara. Authorization for the company was given to Charles Goodall of San Francisco, a co-owner of Goodall, Nelson & Perkins, agents for one of the steamship lines using the San Luis Bay. Later that year, the SLO & SMV bought the SLO and began construction to convert it to thirty-six inch gauge.

The first locomotive of the SLO & SMV was ordered from Baldwin in 1875. The locomotive, Avila, was to be a 2-4-2 double-ender--one equipped with a pilot and headlight at each end for operation in either direction--and was the first of its class to be built by BLW. No tender was needed because the locomotive was designed with a saddle tank on the boiler and space in the cab for wood. The track was completed to San Luis Obispo in 1876 and in that year a 4-4-0, John Harford, was also recieved from BLW. Goodall, Nelson & Perkins were so delighted by these developments that they formed the Pacific Coast Steam Ship Company (PCSS) in 1876.

The Pacific Coast Railroad (PC) was formed in 1881 by members of the PCSS to extend the SLO & SMV from San Luis Obispo to Central City and the Los Alamos Creek valley. In 1882, Henry Villard, president of the Northern Pacific and the Oregon Railway & Navigation Company, bought controlling interest in the PCSS and, therefore, most of the stock in the SLO & SMV, all under the name of the Oregon Improvement Company (OIC). Later in 1882, the Pacific Coast Railway (PCRY) was formed in San Francisco from the SLO & SMV, the PC, and the OIC. The bonds issued for the PCRY were bought by the Oregon Improvement Company, thereby retaining all control. In 1883, the horse line from Harford's wharf was re-surveyed by the PCRY and rebuilt as a thirty-six inch track from the wharf to the trestle at Avila. The last main line constructon on the PCRY was completed in 1887, with the track reaching Los Olivos.

The Pacific Coast Railway began to feel the pinch of serious competition in 1894, when the Southern Pacific reached San Luis Obispo with through passenger service to San Francisco. The Oregon Improvement Company was also having other problems, and a receiver was appointed and all property was sold under

foreclosure to the Pacific Coast Company, a reorganization of the OIC, in 1895. The property included the Pacific Coast Railway, the Columbia & Puget Sound RR, the Seattle & Northern Ry, Port Townsend Southern RR, and the Pacific Coast Steam Ship Company.

Along with the reorganization, two other events occurred in the next three years which helped keep the PCRY from sinking into oblivion. These were the opening of a Union Sugar Company factory in Betteravia (1899), and the discovery of oil in Arroyo Grande, near the main line (1900). A branch line to Betteravia was completed in 1898, bringing new passenger and freight business. The Union Oil Company well at Arroyo Grande did not produce enough oil to exploit, but within two years the Western Oil Company brought in two major wells in the Los Alamos valley. This caused an emergency for the PCRY, as it was not equipped with tank cars to handle the flow of traffic. Tank cars were manufactured by the PCRY by placing standard gauge tanks on narrow gauge flat cars, and the PCRY reaped great profit from the oil business which continued and expanded.

In 1905, an extension line was built to Suey Ranch for the Union Sugar Co. and electrified by C. P. Baird, originator of the Baird Electrical Railway System. Two other lines to Guadalupe and Betteravia were electrified over the next four years, and operated until 1928.

Competition again became a threat to the PCRY in 1911, when the Santa Maria Valley Railroad was chartered as a standard gauge to be built by the Santa Maria Oilfields of California, Inc. The Santa Maria Valley RR was to connect the new oil refinery at Palmer with the Southern Pacific at Guadalupe, cutting

off the PCRY in the process. The PCRY Superintendent immediately announced that the Guadalupe-Sisquoc line would be standard gauged and extended to Palmer, but management vetoed the plan. The Santa Maria Valley RR was sold several years later, becoming one of the most prosperous short lines in the country after the sale. The new owner also conducted an educational campaign among area farmers on crop rotation and farming techniques, leading to an increase in vegetable production and decrease in sugar beets. This change resulted in the closure of the Union Sugar Co. factory in Betteravia and discontinuation of the interurban trolley in 1928.

By 1928, the only portion of the PCRY with an operating profit was the Santa Maria-Sisquoc branch. The gravel pits near Sisquoc were supplying crushed rock and gravel to the contractors building the highway which would prove to be the ultimate undoing of the PCRY. The sudden surge of business and profits gained from the Sisquoc branch allowed the purchase of equipment from the N-C-O, which had just been standard gauged by the SP. This equipment, two locomotives and twenty-two cars (including two caboose cars), was used on the Sisquoc branch, being better suited to the heavy loads than other PCRY rolling stock.

The completion of the highway in the early 1930s began the final era of the Pacific Coast Railway. With the advent of the private automobile, the PCRY became less and less profitable until, in 1941, the entire line south of San Luis Obispo was abandoned. Early in 1942, the remainder of the line, from Port San Luis to San Luis Obispo, was sold to the Alphonze E. Bell Corporation of Los Angeles on behalf of the Bell Oil Company. The Bell Corporation purchased only the right-of-way for the Port San Luis Transportation Company,

most of the equipment already having been sold to Aaron Ferer & Son of Los Angeles. The equipment bought by Ferer was resold elsewhere for use or as scrap.

Control of the Pacific Coast Railway was acquired by Great Northern Railroad in 1951, ending a history of eighty years service in many forms to the coastal valleys of California. Commerce and agriculture in the coastal valleys--and the State as a whole--are indebted to the Pacific Coast Ry for its role in the exploitation and expansion of the resources in this area.

PACIFIC COAST RAILWAY CHRONOLOGY

- 1855 San Luis Bay used as steamship port - problems in transporting passengers and freight from shore to ships.
- 1871 John Harford begins construction on wharf, to include thirty-inch railroad.
- 1-30-1873 San Luis Obispo RR (SLO) organized by local ranchers and merchants - thirty-inch gauge - to run from San Luis Creek to town of San Luis Obispo.
- 9-1873 Harford's wharf complete in San Luis Bay - thirty-inch gauge horse and gravity railroad to San Luis Creek.
- 3-2-1874 San Luis Obispo & Santa Maria Valley RR (SLO & SMV) authorized by State Legislature to construct a railroad from San Luis Bay to Santa Barbara. Organized by Chas. Goodall of San Francisco, co-owner of Goodall, Nelson & Perkins, steamship agents.
- late 1874 SLO & SMV buys SLO, begins construction on line - changes SLO to thirty-six inch gauge.
- 2-1875 Goodall, Nelson & Perkins Steamship Co. formed.

- 7-16-1875 First locomotive, Avila, ordered from BLW, to be a 2-4-2 double-ender, first of its class built by BLW.
- 11-8-1875 Avila and 11 cars unloaded at Harford's Wharf.
- 8-1876 Track complete to San Luis Obispo.
- 11-1876 BLW 4-4-0, John Harford, unloaded at Harford's Wharf.
- Fall 1876 Goodall, Nelson & Perkins Steamship Co. becomes Pacific Coast Steamship Co. (PCSS).
- 5-21-1881 Pacific Coast RR (PC) formed by members of PCSS to extend SLO & SMV from San Luis Obispo to Central City and Los Alamos Creek valley.
- 10-12-1881 Track complete to Arroyo Grande - freight runs only, no passenger service until 12-10-1881.
- 4-22-1882 Track complete to Central City.
- 1881-1882 Henry Villard, president of Northern Pacific and the Oregon Ry & Navigation Co. buys controlling interest in PCSS and, therefore, most of the stock in SLO & SMV for the Oregon Improvement Company (OIC).

- 9-25-1882 Formation of Pacific Coast Ry (PCRy) in San Francisco from SLO & SMV and PCRR, and OIC; all bonds issued and bought by OIC.
- 10-11-1882 Track complete to Los Alamos.
- 1-1883 Harford's railroad re-surveyed and rebuilt from the wharf to the trestle at Avila. New line opened, 3-1883.
- Fall 1887 Track complete to Los Olivos.
- 1888 Street railway built in San Luis Obispo by PCRy, sold in 1891, abandoned about 10 years later.
- 5-4-1894 Southern Pacific reaches San Luis Obispo with through passenger service to San Francisco.
- 1895 Receiver appointed to OIC, and property sold under foreclosure to Pacific Coast Co. (re-organization of OIC). Sale included Pacific Coast Railway, Columbia & Puget Sound RR, Seattle & Northern Ry, Port Townsend Souther RR, and Pacific Coast Steam Ship Co.
- 1899 Union Sugar Co. opens factory in Betteravia.
- 1900 Oil discovered near Arroyo Grande.
- 1901 SP begins through passenger service from San Francisco to Los Angeles.

1901 Western Union Oil Co. brings in first well in Los Alamos valley.
All PCRY equipment converted to oil.

1905 Extension line built to Suey Ranch for Union Sugar Co. Line
electrified by C. P. Baird from Suey Ranch to the factory.

1906 Santa Maria-Schuman Ranch branch completed.

1907 PCRY heavily fined by ICC for safety violations (couplers and
brakes).

1909 Santa Maria-Guadalupe branch electrified.

1911 Santa Maria Valley RR chartered by Santa Maria Oilfields of
California, Inc., to be standard gauge connecting new oil fields
at Palmer with SP in Guadalupe.

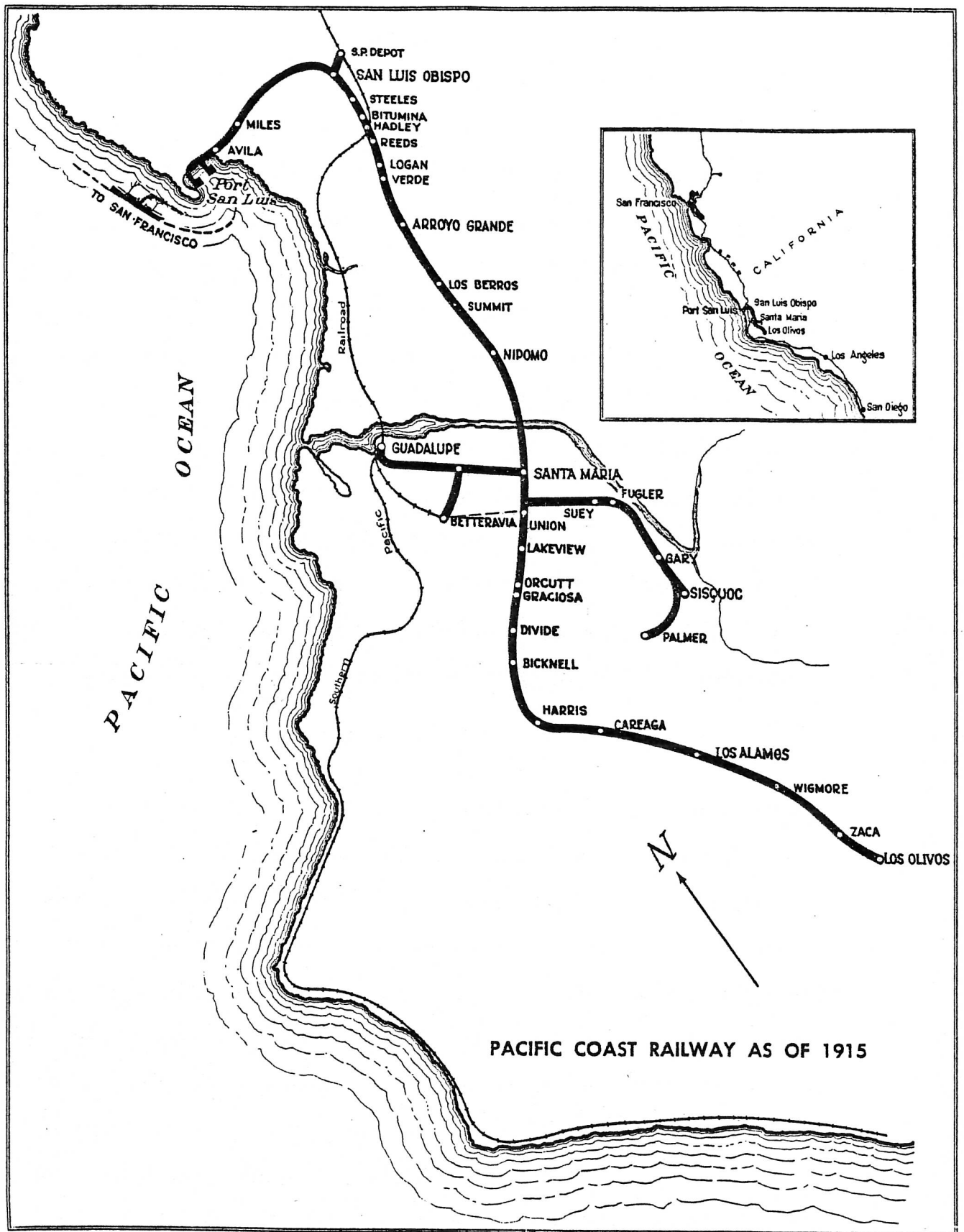
1927 Union Sugar Co. factory at Betteravia shuts down.

1928 Santa Maria-Guadalupe interurban trolley discontinued - replaced
by buses.

1928 Santa Maria-Sisquoc branch only one showing any operating profit.
Equipment purchased from N-C-O for Sisquoc branch.

early
1930s Highway completed; competition from automobiles.

- 1941 Line south of San Luis Obispo abandoned.
- 1942 Line from San Luis Obispo to Port San Luis sold to Bell Oil Co.
for Port San Luis Transportation Co. -- Bell purchased right-of-way
only. Most PCRY equipment sold to Aaron Ferer & Son.
- 1951 Great Northern RR acquires control of Pacific Coast Railway.



Courtesy Howell-North Books

FOOTNOTES

- 1 The "Annual Report of the Nevada-California-Oregon Railway to the Board of Railroad Commissioners of the State of California: Year Ending June 30, 1910" (see Appendix B) shows the addition of one caboose car (pg. 101) to the N-C-O equipment roster in 1910. An accounting of "Expenditures for New Lines or Extensions During the Year" (pg. 37) lists \$814.40 as spent on "Freight-Train Cars." Comparing the classifications of equipment used in the report, this probably represents Caboose No. 2. Kevin Bunker, a former CSRM researcher, reports a conversation with David Myrick, author of Railroads of Nevada, in which Mr. Myrick cited a 1917 ICC Valuation Report as stating that the N-C-O "paid purchase cost of \$837.30 on January 10, 1910 for Caboose No. 2, new" (see Mr. Bunker's notes and reports on Caboose No. 2). From this conversation, Mr. Bunker also notes that "N-C-O Caboose Nos. 2 & 3 maybe built in Truckee at Reno Mill & Lumber Co." (ibid.).

The "Voucher Record: March 1909 - June 1910" of the Nevada-California-Oregon Railway was examined for reference to the purchase of Caboose No. 2 between July 1, 1909 and June 30, 1910. No reference to a purchase for the amount of either \$814.40 or \$837.30 - particularly on January 10, 1910 - was found. (Note: The discrepancies in these reported purchase prices could represent increasing valuation of the equipment over the years, as it has been pointed out by CSRM staff members that it was common practice to report the current evaluation of equipment as the purchase price.) There were, however, several entries under the heading of "Pay Roll on New Equipment," without corresponding

purchases of new equipment which would indicate that the labor was in the set-up of the stock. One of these entries on page 40 of the "Record," for \$22.50, is labelled "Caboose 2," with the attending note that it is for "'A' Pay Rolls September (1910)."

None of these entries constitute proof of the origin of the caboose, but the lack of a definite purchase and the payment for labor on new equipment without further labelling suggest that Caboose No. 2 was built by the Nevada-California-Oregon Railway in its own Shops, probably in Alturas.

- 2 There is no definite date for this sale, but Frederic Shaw, et.al., in Oil Lamps & Iron Ponies (pag. 184) note that two locomotives, Nos. 10 & 11, were sold by the N-C-O to the PCRY in 1928 and renumbered Nos. 110 & 111. The caboose was probably also transferred at this time.
- 3 From "California Public Utilities Commission Annual Report for the Pacific Coast Railway Company, Fiscal Year 1930," (California State Archives Collection).
- 4 Gerald M. Best, Ships and Narrow Gauge Rails: The Story of the Pacific Coast Company (Berkeley: Howell-North, 1964), p. 94.
- 5 See: Sharon L. Edaburn, "The Monterey & Salinas Valley Railroad: Combination Car No. 1" (CSRM report, 1978).

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